<u>Amendments to the Claims</u>:

This listing of claims will replace all prior versions, and listings, of claims in the application.

<u>Listing of Claims</u>:

1.      (Currently Amended)  A display device, ~~for carrying out image display on an active-matrix OLED display panel by controlling current flowing in OLED elements for a plurality of pixels based on image data,~~ comprising:

an active-matrix OLED display panel for receiving image data, the panel having a plurality of pixels, each pixel having an OLED element;

means for supplying setting values for contrast and brightness that are separate from the image data to the OLED display panel;

the active-matrix OLED display panel including display setting circuitry including a multiplier and an adder for setting a relationship between image data and current values for current flowing in all OLED elements in response to the supplied contrast and brightness setting values and the supplied image data;

estimation circuitry for estimating total panel current flowing in all of the plurality of pixels when carrying out display for the display panel based on the image data; and

current control circuitry for controlling actual panel current by correcting the supplied contrast or brightness setting values based on the panel current estimated by the estimation circuitry, so that the actual panel current does not exceed a selected maximum value.

2.      (Previously presented)  The display device of claim 1, wherein, when the total panel current estimated by the estimation means does not exceed a specified set value, correction of contrast or brightness by the current control circuitry is not effected.

3.      (Cancelled)

4.      (Cancelled)

5.      (Previously presented)  The display device of claim 1, wherein the current control circuitry controls contrast based on the following equation:

$$C' = C - (C + B/(k \cdot Lw0) - a) \cdot (Ical - Icalx)/(Imax - Icalx),$$

where C is contrast setting value, B is brightness setting value, Lw0 is maximum luminance at initial setting time (C=1, B=0), a is luminance at the time panel current becomes IMax, when displaying a totally white surface, divided by Lwo, Ical is panel current when subjecting original image data values to linear conversion, Imax is maximum current flowing in the panel, Icalx is the Ical value (can be arbitrarily set) for the point at which maximum luminance begins to lower, and k is gamma correction input data divided by luminance.

6.    (Previously presented)  The display device according to claim 1, wherein the estimation circuitry estimates panel current based on the following equation:

I=Rframe/Er+Gframe/Eg+Bframe/Eb,

where, Rframe is the sum total of R pixel data for one frame, Gframe is the sum total of G pixel data for one frame, Bframe is the sum total of B pixel data for one frame, Er is R luminance divided by current flowing in one R pixel, Eg is G luminance divided by current flowing in one G pixel, and Eb is B luminance divided by current flowing in one B pixel, wherein R, G, and B respectively means to Red, Green and Blue.

7.    (Cancelled)

8.    (Original)  The display device of any one of claim 1, wherein the estimation means estimates total current based on the sum or average of image data for a single image frame or a plurality of image frames.